WHAT IS CLAIMED IS:

1. A pharmaceutical composition which is comprised of protein S and/or at least one functional variant thereof, wherein the protein S or the functional variant is present in an amount sufficient to provide neuroprotection.

2. The composition of Claim 1, wherein protection against ischemia, hypoxia, re-oxygenation injury, or a combination thereof is provided in the nervous system of a subject in need of treatment.

3. The composition of any one of Claims 1-2, wherein inhibition of apoptosis and/or promotion of cell survival is provided in the nervous system of a subject in need of treatment, while antithrombotic effects are minimized.

4. The composition of any one of Claims 1-3, wherein the composition is adapted to protect one or more cell types in a subject's nervous system.

5. The composition of any one of Claims 1-4, wherein the protein S or the functional variant acts through one or more receptors selected from the group consisting of annexin II and Tyro3/Axl receptor tyrosine kinases.

6. A method of protecting one or more cell types of a subject's nervous system comprising administration of an effective amount of protein S and/or at least one functional variant thereof to the one or more cell types to provide neuroprotection.

7. The method of Claim 6, wherein the protein S or the functional variant is a human protein S or functional variant.

8. The method of any one of Claims 6-7, wherein the protein S or the functional variant has at least anti-thrombotic activity.

9. The method of any one of Claims 6-8, wherein the protein S or the functional variant has at least anti-inflammatory activity.

10. The method of any one of Claims 6-9, wherein the protein S or the functional variant at least inhibits apoptosis or acts as a cell survival factor.

11. The method of any one of Claims 6-10, wherein the protein S or the functional variant acts through one or more receptors selected from the group consisting of annexin II and Tyro3/Axl receptor tyrosine kinases.

12. The method of any one of Claims 6-11, wherein no protein C or activated protein C is administered.

13. The method of any one of Claims 6-12, wherein there is no deficiency of protein S activity in the subject.

14. The method of any one of Claims 6-13, wherein the protein S or the functional variant is administered to the subject after injury caused by at least ischemia, hypoxia, re-oxygenation injury, or a combination thereof.

15. The method of any one of Claims 6-13, wherein the protein S or the functional variant is administered to the subject at risk for injury caused by at least ischemia, hypoxia, re-oxygenation injury, or a combination thereof.

16. The method of any one of Claims 6-13, wherein the protein S or the functional variant is administered before and/or after diagnosis of disease or another pathological condition.

17. The method of any one of Claims 6-13, wherein cerebral blood flow in the subject's brain is increased by administration of the protein S or the functional variant.

18. The method of any one of Claims 6-13, wherein volume of the subject's brain which is affected by injury, infarction, edema, or a combination thereof is decreased by administration of the protein S or the functional variant.

19. Use of protein S or at least one functional variant thereof in an amount effective to protect against at least ischemia, hypoxia, re-oxygenation injury, or a combination thereof for the manufacture of a pharmaceutical composition.

20. Use of protein S or at least one functional variant thereof in an amount effective to at least inhibit apoptosis or act as a cell survival factor.

21. Use of protein S or at least one functional variant thereof for the manufacture of a pharmaceutical composition to at least inhibit apoptosis or act as a cell survival factor.

22. A process of screening for an agent which inhibits apoptosis and/or acts as a cell survival factor comprising:

(a) providing a library of candidate agents which are variants of protein S and

(b) selecting at least one agent by its ability to inhibit apoptosis and/or act as a cell survival factor.

23. A process of producing an agent which inhibits apoptosis and/or acts as a cell survival factor comprising:

(a) providing a library of candidate agents which are variants of protein S,

(b) selecting at least one agent by its ability to inhibit apoptosis and/or act as a cell survival factor, and

(c) producing the at least one agent.

24. An agent selected by the process of Claim 22 and/or produced by the process of Claim 23.